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THE USE OF FINANCIAL INFORMATION IN SECURITY CLEARANCE PROCEDURES

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THE USE OF FINANCIAL INFORMATION IN SECURITY CLEARANCE PROCEDURES

EXECUTIVE SUMMARY

This report presents the findings of an exploratory study designed to determine if existing financial reporting sources can be used to evaluate the financial health and behavior of individuals in critical management positions. There are at least two dimensions to the financial health and behavior issue. The first is the identification of individuals who are receiving funds for illegal or unethical activities. Given that individuals acquire resource bases that exceed normal expectations, can we use current accounting and financial reporting sources to identify such individuals? The report discusses the use of such traditional methods as using information available from personal credit reports for the identification of individuals who are in categories known as "superpayers". The other dimension of the issue is that financial difficulties may be an indicator of susceptibility to committing illegal or unethical acts to meet financial obligations. The report also discusses the use of the financial data for predicting financial difficulties.

Though traditional sources can be used to evaluate the financial health and behavior of individuals, evidence indicates that legitimate and illegitimate resources are not necessarily or ordinarily identified by normal financial reporting mechanisms. Therefore, a second level analysis was initiated to ask the question of how to identify resources, primarily cash, that would not be reported through normal financial reporting mechanisms (e.g., unlisted bank accounts, cash purchases). Methods that could be used to investigate or identify the orderly disposal of large amounts of cash were explored.

Results indicate that available data sources to track such expenditures are limited. However, in some cases surrogate measures may be useful. Currently, additional work is being done by others in the use of artificial intelligence and statistical modeling to identify individuals who are or represent risks as identified by their reported financial information.

INTRODUCTION

The purpose of this report is to discuss the results of an exploratory study of the use of currently available financial data to improve the screening of individuals for positions of trust. This includes individuals who are in a position to make policy decisions, those whose employment requires access to classified information and those entrusted with the financial resources of an organization. The approach taken was to identify commercially available databases that could identify the use of financial resources by individuals.

Methods currently in use to assess suitability for security clearances, such as background checks into the personal lives of applicants, appear to be at least partially effective. None of the recent widely publicized cases of espionage and fraud has had blackmail, political sympathies and other issues of character alone as a motivator. We do know, however, that in almost every recent case of the unauthorized disclosure of government information and other illegal behavior, money has been an incentive for the individuals involved (Betts, 1988). For instance, Frank Coccia, a former top civilian official in the Defense Personnel Support Center's clothing and textile directorate, is scheduled to be sentenced after pleading guilty to racketeering charges. Mr. Coccia accepted bribes from textile and clothing companies seeking government contracts and hid the proceeds in his home. Mr. Coccia used a civilian consultant who was a former Defense Department employee as his "bagman". The civilian consultant collected the bribe money from military clothing companies and laundered it by

exchanging the cash for money orders and gold coins. The associate then delivered the bribes to Mr. Coccia and other Defense Department officials. Prosecutors say they can prove that Mr. Coccia accepted at least \$330,000 in bribes. A total of \$440,000 has been seized from Mr. Coccia by federal investigators (Pound, 1988).

An assessment of the financial profiles of individuals appears to be an area where gains could be made in improving screening processes. For instance, in the well-publicized Walker and Whitworth cases, vital military communications information was sold over a period years for financial gain. The original impetus was financial difficulties experienced by Walker (Barron, 1987). In the Pollard case, information was passed to another government, which Pollard said had a right to the information. However, Pollard was also paid about \$45,000 for his efforts (Marcus, 1985). It has been hypothesized that better financial screening would have identified these individuals as possible risks, and that further investigation prompted by the financial screens would have stopped their activities long before so much damage had been done (Rosa, 1986).

METHODS

The approach adopted for the analysis of the financial profile of individuals can be viewed as a series of screens going from coarse to fine. Each layer of the screen attempts to filter more refined and less obvious financial indicators. Four avenues were explored to attempt to identify information that could be used for

screening purposes: credit reports, banks, list brokerage information and airline travel information. We considered the effectiveness of the screens on individuals in two different financial situations: those with financial difficulties and those with unexplained financial resources. For the individuals with financial difficulty, the emphasis was on seeking means both to identify individuals who are financially overextended and to predict financial difficulty. For those individuals with unexplained financial resources, we also considered level of sophistication in handling financial resources and income level. Those individuals who are unsophisticated concerning financial matters could be expected to behave in ways which would be readily observable through existing financial reporting sources. An individual with a salary of \$20,000 per year who has a high line of credit and takes frequent, expensive vacations would be an example of such behavior. Such cases should be easily detectable using current and rather coarse screening procedures. It would be more difficult to detect illicit financial activity involving individuals with a higher degree of financial sophistication. These individuals could be expected to behave in ways that would not be as readily observable. Also, an individual's level of income will influence the ability to identify excess resources. That is, the increase in discretionary income when one moves from \$20,000 a year to \$50,000 a year makes the task of identifying individuals who are living beyond their means more difficult.

CREDIT REPORTS

Currently, credit reports are one of the primary method used by commercial firms and governmental agencies to assess an individual's financial stability (Chandler and Coffman, 1979). Credit reports contain financial and public record information concerning the subject of the report. This information includes demographic information such as name, home address, social security number, employer and age. Each credit account listed on the credit report generally includes account number, monthly payment patterns, subscriber code, date reported, date opened, limit, balance, amount past due, type of account and account status. Information obtained from public records, such as liens, bankruptcy, and legal suits is also included. The information received from credit reports will be complete only if the subject of the investigation has provided all former addresses and aliases or the credit history identifies the addresses and aliases. For any single credit reporting service depth of coverage for a given locale varies (i.e., although a credit reporting service covers a geographic area, another service may have a better reporting system for that particular area in that more of the local firms use and report to one credit agency as opposed to the other). As a result, if a former address is not provided and local coverage by the chosen credit reporting service is not thorough, it is possible that a period of poor financial performance will be missed entirely by investigators. Of course, if a thirty-five year old applicant is investigated and shows no record of previous credit, this should cue investigators to

initiate a more thorough investigation. However, a twenty-two year old with no previous credit history is more understandable. Also, until recently, east and west coast credit reporting systems were not fully connected and many credit reporting systems were not necessarily connected between states.

In addition to identifying individuals who could pose a risk because of financial difficulties, the credit report can be used to identify individuals with unexplained financial resources who are known as "superpayers". "Superpayers" are individuals who support higher levels of credit at greater levels of currency than could normally be expected at their income level. These individuals are of interest because the unexplained affluence could indicate resources obtained by illegitimate means. On the other hand, the unexplained affluence could be the result of something as simple as an inheritance.

Major drawbacks in using credit reports to financially screen candidates and current employees for positions of trust include: The reports are complex and time-consuming to analyze. There is no standardized reporting format for the various credit services. Relevant data may be missing. In addition, if the analysis is done manually the reliability of the analysis of the report depends on the skill of the individual evaluator. Techniques have been developed to overcome some of these problems. These evaluation techniques were developed for credit granting institutions (Makowski, 1985). Two such techniques, automated credit scoring and expert systems, are discussed below.

CREDIT EVALUATION

Credit evaluation or scoring is used to rate credit reports and credit applications. Manual or automated methods can be used. Manual methods can be judgmental, such as a loan officer reviewing a credit application, or incorporate the application of such techniques as decision trees (Chandler and Coffman, 1979). Automated credit evaluation includes the use of techniques such as discriminant analysis, which is discussed in the next section.

Automated Credit Report Analysis

The use of discriminant analysis for credit scoring requires a historical database. Discriminant analysis programs are usually constructed using credit performance data obtained from the user's experience with the pool of individuals to whom the user has granted credit. The database may contain information not found on the credit report but requested by the credit granting institution (Harter, 1974). While these systems may be well-suited for use by financial institutions granting credit, the need for a historical base restricts their use in background investigations. The number of individuals identified as perpetrators of illegal or unethical activities through use of a position of trust is small. The U.S. Government has arrested only 63 people for espionage since the late 1970's (Wallcott, 1987). Information on individuals in the private sector who commit unethical or illegal acts for financial gain appears to be under-reported (Dee, 1985; Loomis, 1985; Metzenbaum, 1986; Willis, 1986). At best, the use of discriminant analysis in

background investigations could only be based on the judgmental analysis of "good" and "bad" risks as defined by experts.

The Defense Personnel Security Research and Education Center (PERSEREC) contacted the Fair, Isaac Companies to discuss the feasibility of the use of automated systems for the financial portion of the security clearance process. Fair, Isaac pioneered the development of automated financial analysis systems for the financial community (Makowski, 1985) and has experience working with another government agency, the Internal Revenue Service. Fair, Isaac eventually submitted a proposal to the Defense Investigative Service (DIS) for the development of a Custom Automated Strategic Application Processing System (ASAP). Fair, Isaac's proposal points out the similarities of the needs of and processes used to arrive at "good risk/bad risk" decisions between DIS and the financial community. The benefits Fair, Isaac expects DIS to accrue should it choose to implement the proposed ASAP System are very similar to the benefits of expert systems to the financial community enumerated by Ben-David and Sterling (1986). These expected benefits include faster processing of the credit report portion of the investigation, the need for fewer personnel due to paperwork reduction, and increased ability by management to track performance and refine investigative parameters.

Little empirical data are presently available on which to base investigative parameters. Fair, Isaac claims that the database and management reports generated by ASAP could provide management and investigators with the information needed to adjust investiga-

tive strategies for maximum effectiveness. The federal government has a longstanding interest in the cost effectiveness of investigative procedures (ODASD & OASD, 1970; Department of Defense, 1974; Defense Investigative Service, 1981). The ASAP may provide data in the form of management reports that will support divergent and more cost effective investigative techniques for different categories of security clearance applicants. For instance, the data might reveal that credit checks pertaining to addresses more than five years old rarely yield information relevant to investigations on civilian contractors. These reports would give management the data to support shortening the investigated time period. On the other hand, the reports might show that credit checks covering the past ten years often contain relevant information. These data would then support the decision to retain the data for the ten year period. In addition to providing data to manage investigative parameters, the data would lend support to resource allocation requests in the agency budgeting process.

Expert Systems

Expert systems are being to be applied to the area of credit analysis (Sivasankaran and Salazar, 1988). Expert systems hold the promise of eliminating many of the drawbacks associated with the manual analysis of credit reports (Sivasankaran and Bui, 1987). The potential benefits to be gained from such systems can in many cases be applied to the financial portion of background inves-

tigations. According to Ben-David and Sterling (1986) benefits to financial institutions include:

- Identification of potential threats among present debtor customers when the system is used in conjunction with existing databases.
- A better decision making process when a human expert has a good expert system.
- Better results by using both rules of thumb and "conventional" bad debt analysis.
- Time spent on trivial and straightforward cases can be lessened.

The expert system offers the ability to model the expert's logic and identify patterns that are significant from the expert's perspective. When expert systems are applied to the financial portion of background investigations, these systems have the potential to reduce the personnel resources needed, streamline the processing and eliminate backlogs for financial screening of individuals in positions of trust. Expert systems can complete the initial screening of the reports. Human experts can spend their time analyzing difficult cases rather than screening routine cases. By simple keyboard inputs to the system, managers can choose and adjust criteria for flagging cases as new investigative criteria and parameters are developed. The time from the origination of a background investigation to completion could be reduced because of the automation of the process. In addition, the use of expert systems can reduce the cost of credit report analysis to a level which allows for more frequent follow-up and the establish-

ment of financial trends for an individual (Ben-David and Sterling, 1986).

Identifying additional meaningful data to better screen individuals for positions of trust remains an issue with an automated screening system or expert system. It must be remembered that the construction of an expert system requires an expert. The effectiveness of the expert system is limited by the fact that it is based on knowledge gained through interviewing an individual or individuals with a proven performance record in the area (Buchanan et al., 1983). Analysis of "good" and "bad" risks depends on the knowledge and biases of these individuals. While an expert system may increase efficiency in terms of processing reports and resource allocation, "built-in" errors may affect the performance of the system. Errors in "good" versus "bad" risk judgments are possible because of the policies applied by the agencies involved in adjudicating background investigations as well as biases due to the system's programming. While different inquiries and investigative parameters may be found to be more efficient for different categories of investigations (such as active duty officers versus civilian contractors), data which can be used by management to increase efficiency does not necessarily mean increased effectiveness in screening out security risks. "Bad risk" detection failure rates are not as easily determined in the personnel security field as in the financial arena. Determining failure rates cannot be accomplished by simply assessing the currency of accounts. It is virtually impossible to know when the screening mechanisms have

failed except when an individual is caught in illegal or unethical acts.

Credit Report Acquisition

The acquisition of the credit reports for analysis can also be either a manual or automated process. Programs are available which automatically choose the credit reporting service with the best coverage for a particular geographic area using addresses keyed in by system operators or transmitted by facsimile (Nelson, 1979; Slater, 1979). The ASAP System proposed by Fair, Isaac for DIS contains this feature. The ASAP will also monitor level of performance by credit reporting bureaus in a given area and allow management to choose which bureau will be queried. This will help ensure the use of the bureau with the "richest" financial data for a given area. Use of the best credit information available has the potential to increase the quality of the final credit report on individuals. The ASAP System is designed to order appropriate reports and generate manual requests for credit information when needed. The automatic procurement of credit reports could further reduce personnel costs and expedite the process of financial screening.

BANKS

Banks and other financial institutions, such as Savings and Loans and Credit Unions, are of interest for two reasons. The first is that banks are credit granting institutions and the

logical place for depositing excess funds. The second is that banks must report to the government information concerning depositors. The Bank Secrecy Act requires financial institutions to report deposits and withdrawals in excess of \$10,000 or a series of deposits or withdrawals in excess of \$10,000 which could be construed as a single transaction (Journal of Accountancy, March 1986). The intent of the law is to restrict the ability of individuals involved in illegal activities to move and launder money (Journal of Accountancy, January 1986). If an individual is depositing illicitly obtained funds, records would be available to investigators. Under the provisions of The Right to Financial Privacy Act, federal investigators can obtain the records with an administrative summons, subpoena, search warrant, a judicial subpoena or written customer authorization (McDonough, 1987). Hiring agencies could conceivably require a written release for obtaining such information as a precondition to employment. Some individuals attempting to conceal funds might be caught in this screen. However, it is unlikely that an individual knowledgeable in financial matters would deposit or withdraw large sums of money and run the risk of exposure. Banks are also required to report interest paid on accounts to the Internal Revenue Service (IRS) (Journal of Accountancy, January 1986). The knowledgeable individual also would not place the funds in an interest-bearing account which would be reported to the IRS. However, even if the information were reported, IRS policy and the Right to Financial Privacy Act severely restrict access to the information (Dwyer,

1985). It is more likely that such an individual would deposit money in a non-interest-bearing account in small increments which would then not be reported to either law enforcement agencies or the IRS. If credit is not requested at the financial institution where the non-interest-bearing account is located, the existence of the account would not be reported to credit reporting services. Given that checks are cleared by the Federal Reserve Banks using only bank identification numbers, individual checking accounts could be maintained and used by an individual without the funds ever being identified with that individual's credit history (Bizzle, 1988). Though the individual could be required to sign a release which would relieve the restrictions of the Right to Financial Privacy Act and allow employers access to bank records, finding such accounts would still be difficult.

EXPLORATION OF ALTERNATIVE FINANCIAL INDICATORS

Since it is possible for an individual to conceal excess resources, alternative means to conduct financial screening were explored. Two areas which were considered to have potential as screens were the use of list brokers and airline records.

LIST BROKERS

List brokers are of interest because individuals who successfully conceal funds in financial institutions might spend cash or use unreported checking accounts to purchase luxury items. These luxury items could provide a means to dispose of the funds in a way

that is not obvious to the casual observer. For example, if one buys high quality clothing those who see the individual may think the person dresses well, but will not necessarily know how much money was spent on the attire. Another example would be expensive wine for home consumption. It is unlikely that others would notice that the wine an individual regularly drinks with dinner costs \$50 or \$150 a bottle. Even if it were noted that the individual drank wine, the general population and most investigators would probably not be aware of the value of a particular wine.

If the individual always made cash purchases and never allowed the purchased items to be delivered, it would be extremely difficult to identify that individual. If, on the other hand, catalog purchases were made or the individual allowed home delivery of the purchased items, the individual could end up on the mailing lists of "upscale" stores (e.g., Nieman-Marcus, Saks, Gumps, and Bergdorf-Goodman). One method to identify these individuals would be to cross-check the mailing lists for individuals with high units of sale from these stores. If the sales of luxury items were determined to be at a higher level than could normally be supported on the individual's salary, it could indicate the individual has unexplained excess resources or is overextended financially.

Though identifying individuals through the cross-checking of such mailing lists may be possible, it does not appear to be practical. Retailing firms organize their databases by such categories as geographic area, zip code, sex and by average units of sale (maximum category generally in the range of \$100) for the

last three, six of twelve months (AETNA, 1988). It would be extremely difficult to use the lists as a screening mechanism as only small purchases would be required to surpass a \$100 cutoff for average unit of sale. Also a number of relatively small purchases could result in an individual's name being included on all the lists in question at any given time. Interestingly, the list brokers do offer names of individuals categorized by occupation such as government contractors, laboratory executives, plant managers, plant supervisors, computer scientists and engineers, and foreign operation executives. The names of firms with overseas plants and export and import companies are also available to anyone willing to pay the fee. These lists coupled with credit reports could be an invaluable resource for those recruiting individuals to commit illegal or unethical acts (Betts, 1988).

AIRLINE TRAVEL

Another area examined as a possible avenue of identifying the orderly disposal of cash assets was airline travel. Tracking of airline travel could possibly be used as an indicator that additional investigation is warranted. Airline travel could be important for two reasons. One is that given an individual has excess funds, one way to protect the funds from detection is to deposit the funds in an off-shore bank. The second is to dispose of funds by spending the money for recreational travel.

Airlines account for tickets by ticket numbers and not by the names or other identifying information of the passengers, making

the tracking of airline travel difficult (Palumbo, 1988; Tsotsoros, 1988). Other information on the individual such as the date of travel or the city from which the flight originated is needed so that passenger lists can be examined for the name of the individual. Manual accounting and backtracking is involved in matching ticket numbers to individuals. The manual checks necessary for tracking airline travel render the process too expensive and time-consuming to be used as a routine check. Reservation records are kept on microfiche, but no mechanism is in place which would easily allow for the screening of these records. Since the airlines do not require positive identification unless the ticket is purchased by check or overseas travel is involved, there is no way to be sure the name on the ticket corresponds to the actual traveler even after a name check is conducted.¹ If overseas travel is involved, then the name on the ticket must correspond to the name on the passport. However, federal law enforcement sources indicated that even for federal investigations, passport checks to monitor overseas travel would not be feasible as once the passport or visa is issued, the Department of State does not keep records of travel on individual passports. A manual inspection of the passport would be necessary to determine what foreign traveling an individual had done. (Palumbo, 1988) Regardless, countries such as Canada, Mexico and some Caribbean islands do not require U. S. citizens to have

¹ Such information is not difficult to obtain. Calls to an 800 airline reservation number and a local travel agency generated a complete description of the process by which one could travel without providing identification.

passports and a resourceful individual could possibly find a source for a false passport if one were needed.

DISCUSSION AND CONCLUSIONS

Existing laws such as The Right to Financial Privacy Act restrict access to the records of banks and other financial institutions and limit their usefulness in financial screening procedures. Obtaining information from these sources requires investments in personnel time and expenses which limit their use as a routine screening mechanism for large numbers of individuals. (McDonough, 1987). In addition, IRS policy strictly limits access to its information on individuals. Airline travel information is held in forms unsuitable for rapid screening (Tsotsoros, 1988). The purpose of the airline systems is, after all, economical accounting for airline travel, not monitoring individual travel.

At the present time, credit analysis and credit scoring aided by computer technology show the most promise for improving background screening through the use of publicly available financial data. The use of automated systems to analyze financial health could help officials screen applicants for positions of trust. Most white-collar crime is committed by long-term, trusted employees who develop financial difficulties or "wheeler-dealers" with a lifestyle well beyond their actual financial means (Wells, 1985). Assuming that illegal or unethical acts are the result of financial difficulties, monitoring an individual's financial health over time could reveal unfavorable trends. If financial screening indicates

developing financial problems, preventative action could be taken in time to limit the damage to the organization concerned. Periodic financial screening would also alert organizations to the fact that an employee may be in the act of compromising the organization by uncovering "superpayers" and those with unexplained excess funds. Monitoring financial information could foster greater care in personal financial management or in the opposite vein, greater care in shielding questionable financial activities.

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